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ABSTRACT

The Tennessee Valley Authority has established a Youth Station in the Land Between the Lakes area of Kentucky for the purpose of providing curricular activities in the out-of-doors. The facilities and associated curriculum patterns are designed primarily to accommodate a resident program of outdoor and environmental education experiences. To assist teachers and administrators in using the area and program, this handbook offers guidelines for developing an environmental education program and logistics for use of the Youth Station. Part One explains a resident environmental education program, indicating items related to program planning, pre-site and post-site activities. Part Two enumerates facilities, instructional aids, health and safety considerations, resident fees, and policies regarding staff and facilities. Appended material compiles a suggested clothing list, sample duty chart and daily schedule, sample programs, and a bibliography. (BL)

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TENNESSEE VALLEY AUTHORITY

Land Between the Lakes

YOUTH STATION

GUIDELINES FOR USE

Prepared by
Environmental Education Section

SE 016 139

Golden Pond, Kentucky

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I. RESIDENT ENVIRONMENTAL EDUCATION

The vehicle by which the purpose of education is achieved is the curriculum. Consequently, the outdoor school curriculum contributes to the same purpose as the formal school curriculum and serves to extend, enrich, strengthen, and integrate it. Curricular experiences in the out-of-doors include facts, generalizations, skills, attitudes, appreciations, creative expressions, and a method of working. The learner's physical and social environment becomes the sources of these experiences.

Organizations or schools interested in planning an outdoor school experience should realize that it is an integral part of the total school program and the ongoing curriculum. Classroom activities may begin in September building to a climax with the resident program in the spring. Follow-up and post-site studies can then be carried through to the termination of the school year. Another approach is to conduct a resident program early in the fall, thus enabling integration and interrelation of succeeding classroom work with the environmental learnings encountered during the outdoor school experience. Winter resident outdoor education experiences also provide many interesting and often overlooked areas and topics of study. In addition to classroom involvement, school-site activities and field trips are valuable preparatory experiences creating a more successful resident program. Classroom studies and outdoor experiences complement each other; and through a correlation of the two, the entire curriculum may be spanned.

Planning The Program

Resident environmental education experiences are planned on the assumption that education is the chief aim of the program. Although learning and fun are not in opposition to each other, fun on the part of the learner is a means toward this end. Learning is a pleasant experience when outdoor experiences are related to the interests of the student and his interaction with his environment. The outdoor school should not be considered an extra-curricular activity. The school curriculum is continuous; teachers take their classes to another environment for the particular phase of the curriculum for which the outdoor laboratory is better suited. In many current programs in outdoor education, emphasis is placed on social studies and science. However, it should be realized that in every major curriculum area numerous topics exist in which outdoor field study provides the optimum learning situation. Thus, the ideal outdoor program is an outgrowth of the total school curriculum. The resident experience itself is an introduction to social living and aids in creating cooperative attitudes.

In our democratic society students need many opportunities to learn responsibility. Planning is one. Allowing the participants to have a part in the selecting, planning, and carrying out of their programs is an important educational function in any learning situation. These activities, of course, need guidance from adult counselors, teachers, or the director.

School personnel find that some basic schedule of daily activities is necessary. There is no infallible schedule; therefore, it should be kept flexible and at the same time demonstrate some degree of stability. An example of flexible scheduling of activity periods is included in Appendix C.

The resident environmental education curriculum pattern is organized into the pre-site (initiatory), on-site (developmental), and post-site (culminary) activities. Schools which do not preplan and follow up the outdoor experiences will not gain the fullest benefit of curriculum enrichment and depth.

In the organization of the students, one practical plan is to place each student in two separate groups: living unit (dormitory) and instructional (field study). A living unit consists of eight to ten students and two teachers or counselors living in one dormitory. Each living unit should share the housekeeping responsibilities of their dormitory under the supervision of the counselor. An instructional group is ideally composed of eight to twelve students, one counselor, and one instructor. This group participates in all formal instructional activities.

Student teachers, high school students, and college students can be enlisted as counselors or instructors. Such experiences benefit them as well as the students.

Pre-Site Activities

The outdoor school is natural motivation for classroom activities. During the pre-outdoor planning, the eager anticipation of the outdoor experience lends itself to vitalized learning situations. If the group has gained some basic knowledge within the various curriculum areas to be incorporated in the resident school program, learning is stimulated and the field experiences become much more meaningful.

The first announcement of Youth Station plans will bring enthusiastic questions such as, When do we go? Where are we going? What will we do? Here is the place to begin. Such questions furnish opportunities for correlation and integration of the outdoor and indoor curriculum. In most groups only good teacher guidance is needed.

In large school systems where the director of the proposed outdoor program is not a member of the local faculty, it is recommended that he visit the classroom to become acquainted with the students who will be participating in the resident program. At the same time, he can interest them in some of the activities in which they will engage by telling experiences of former students or showing pictures and movies of activities. A 16mm sound and color film describing the Youth Station complex is available for use in pre-site activities with students and parents. The film entitled "Discovery" may be obtained on loan from Tennessee Valley Authority, Information Office, 516 Union Building,

Knoxville, Tennessee 37902.

Other activities which may be included in the orientation phase are as follows:

1. Determine goals and objectives of the resident environmental education experience.

2. Discuss the responsibilities of students to themselves, other members of the group, their parents, and teachers or leaders.

3. Plan clothing and equipment (suggested list included in Appendix A).

4. Write letters to parents or guardians requesting their permission to participate in the outdoor school program.

5. Establish plans and psychological preparation for a 24-hour day of living, working, and playing together in a community relationship.

6. Arrange for transportation.

7. Plan group organization and government.

Program planning and pre-site student involvement activities are of primary importance to a resident program. Preplanning assures continuity of curricular experiences and enables the outdoor program to be an extension and enrichment of the school curriculum.

Science studies offer excellent motivation for pre-outdoor experiences. Some groups will enjoy gaining information about various insects, animals, or plants to be found in the study area. If a weather station is to be maintained, previous knowledge of weather signs, cloud formations, and weather superstitions will make weather predictions more meaningful. Such knowledge will stimulate further interest in reporting weather conditions each day in preparation of outdoor activities or reporting the weather in an outdoor school daily newspaper. This is an important phase of outdoor school activity in an area or time of year when weather conditions change rapidly. Basic knowledge of ecology will make exploration of the numerous habitats around the Youth Station more interesting. Historical background information will add anticipation of trips to an abandoned iron furnace, iron ore pits, and charcoal hearths, cemeteries and home sites.

Appropriate campfire, vesper, and hiking songs may be taught while stories and campfire programs may be planned as a part of language art classes.

Through classroom and school-site activities, an awareness of sights, smells, sounds, and their interrelationships may be developed or stimulated. This awareness can then be carried into the field experiences enabling the students to benefit from the total program. Awareness of and appreciation for the natural and cultural environment is fundamental to any environmental education program.

Dr. Martin Mortensen summed it up very well when he said, "It is not what the child can repeat by rote that determines his character, but what he has come to understand, to appreciate, to admire, and to love."

Post-Site Activities

The chief aim of post-outdoor experiences should be integration of the resident activities data gathered with the general school curriculum. These experiences are greatly enriched because of the increased understanding, skills, and attitudes in the areas of group living, awareness and appreciation of environmental resources, healthful living, purposeful work experiences, and aesthetic values gained in the resident program.

Post-outdoor experiences are a vital part of the outdoor education program and offer a wealth of meaningful learning activities. As in many other educational endeavors, this phase of learning is often lightly passed over. Classes or groups may continue to do research after they have returned to the classroom. Forest, water, and wildlife conservation of geological studies of the area may be developed in more detail. Increased interest in astronomy may be motivated. Typical post-outdoor activities may include: classifying rock collections; plaster casting animal tracks; writing thank-you letters; making booklets and posters; presenting programs; organizing a diary; teaching outdoor school songs to other grades in school; making murals; publishing a newspaper; conducting panel discussions; presenting radio or TV programs; organizing a snapshot display; planning a program for parents, P.T.A., or service clubs; and conducting further research on interests developed in the outdoor school.

Culminary activities may make the post-outdoor experience one of evaluation. Teachers, counselors, student-teachers, parents, and students may take part. Evaluation becomes as necessary here as in any curricular experience. Evaluation is based on the objectives and results of the outdoor school as they relate to the general purposes of education.

Evaluation reports are made to students, staff members, boards of education, and community groups. Such reports can modify homeroom and classroom procedures, improve student attitudes and skills, improve student-teacher relations, and improve the quality of post-outdoor experiences. The results of evaluations contribute to the approval of the program by school staff, school administrators, and board of education. The participants themselves sell the program to their parents and peers.

The resident environmental education program may serve as a culminating activity for the year. All of the threads of the curriculum are tied together through one experience: concepts, generalizations, skills, creative expression, attitudes and appreciations, and a method or way of working.

II. LOGISTICS OF YOUTH STATION USE

Facilities

Relatively few schools have initiated organized resident environmental education experiences below the fifth grade; however, evidence shows successful programs at most grade levels. On the basis of existing programs, it seems wise that the most effective programs are in the middle grades--fourth, fifth, and sixth. Facilities at the Youth Station are especially designed for grades four through nine but can accommodate any age group.

Dining Hall

The dining hall is a multipurpose building that can be utilized in all phases of the program. It is large enough to accommodate the Youth Station capacity of 72 persons at one sitting in comfortable, spacious surroundings. The tables and chairs are movable making it possible for any seating arrangement that the group wishes. This building, open 24 hours a day, is available for use in recreational programs at night. It has a large fireplace at one end and a projection screen at the opposite end. Ten tables and 82 chairs in the building are available to the group at all times. The kitchen operation is staffed by TVA, and serving times are coordinated with the schedule of the group in residence. The kitchen area is closed except when meals are being served and is a restricted area.

Dormitories

The Youth Station has a maximum resident capacity of 72 persons. Six dormitories, all identical in design, are arranged around the point of a small peninsula. All are modern, self-contained structures equipped with electric heat for winter and ventilation fans for the summer months. Ten stationary beds occupy the main room. A private teacher-counselor room is furnished with bunk beds allowing a dorm capacity of ten students and two adults. Mattresses, pillows, and bed linens are furnished.

Resource Materials Center

Also located in the Youth Station complex, the resource materials center is designed to serve as a multipurpose facility. It contains a laboratory-classroom, open patio, equipment storage rooms, and a restroom. The laboratory-classroom is so designed that students may bring specimens from the field to the lab to study them in more detail with the aid of specialized equipment and references. The building is equipped with tables and chairs for 30 students, a teacher's desk and lab table, chalkboard, bulletin board, and projection screen. A woodchipped patio encircles the building. Here, wooden tables and benches are provided for outdoor work. Two storage rooms contain field and laboratory equipment that may be checked out for use by resident groups. A list of the equipment available is included in the "Instructional Aids" section of this guide.

Instructional Aids

Trails

The systems of trails and footpaths in the Environmental Education Center are marked on the map found in Appendix F by a single broken or dotted line. They are so designed to include examples of many natural habitats and points of cultural interest. The trail from the Youth Station to Center Station can be walked in approximately one hour. It winds its way across Honker Dam, the emergency spillway, by the home flock of Canada geese, through a wooded area pocketed with abandoned iron ore pits, and across a boardwalk before emerging at the rear of Center Station. Branching from this is a footpath (Woodland Walk) that loops through different stages of forest cover. It can be walked in less than 45 minutes.

The trail around Hematite Lake (2-1/2 miles) can be walked in 45 minutes but can take up to two hours if stops were made for exploration and study. It includes the ruins of Center Furnace (see Appendix F), abandoned ore pits, signs of beaver activity, and numerous species of waterfowl. At one end of the trail a boardwalk spans the marshy area of the lake headwaters. A Branch trail leads to an observation point where waterfowl and other wildlife can often be seen.

Long Creek Walk is a paved trail designed to accommodate wheelchairs as well as foot traffic. Approximately 1/3 mile in length, the trail winds through a variety of plant and animal habitats. A rest and observation station located along the trail provides an ideal setting for creative writing and ecology.

Trail of These Hills, a 1-1/2 mile loop near the head of Barnes Hollow tells the story of resource use and management in Land Between the Lakes. Audio stations and signs describe the forestry and wildlife management practices employed to insure resources for the future. Groups are not restricted to the identified trails in the Environmental Education Center but are encouraged to utilize as much of the area as necessary to carry out their programs.

Potential Study Areas

A thorough resource survey of the Environmental Education Center has been conducted, and information regarding the description and location of potential study areas is available. Maps and subject overlays supplementing a description catalog of sites serve as a reference for the school staff planning the resident program. Several outstanding study sites have been identified and labeled as stations.

Aquatic Station--The Youth Station, located on a peninsula on Lake Barkley, the impounded Cumberland River, also affords easy access to numerous inland aquatic study areas. Large lake limnology can be compared with the inland aquatics of Hematite Lake and Honker Lake, two subimpoundments within 1-1/2 miles of the Youth Station. Small ditches, springs,

ponds, and water-filled ore pits also offer excellent study opportunities. One of the ore pits, especially rich in aquatic life, has been designated as the Aquatic Station.

Insect Station--To aid in the capture of insects, two specially designed lights have been placed on the Youth Station peninsula. They produce light rays that attract many species of flying insects and are so designed that insects fly into a barrier which directs them into holding cages until they are collected. The lights are excellent tools for collecting insects for study and mounts.

Weather Stations--Two standard weather stations are available to groups using the Youth Station. One is located on the Youth Station peninsula near the dining hall and the other is positioned near Center Station. Both are equipped with a rain gauge, an anemometer, a barometer, and a wet and dry bulb thermometer. The stations enable students to make daily weather predictions and weekly forecasts through an understanding of the fundamentals of weather and climate. They play an important role in any study in which weather or climate is a contributing factor.

Geology Station--An abandoned iron ore pit mined in the late 1800's provides opportunities for diverse geological study. Deposits of hematite and limonite iron ore outcrop distinctively from a loose clay and chert conglomerate. Geodes and fossils typical of the Mississippian Period are found along the banks and in loose deposits near the bottom of the pit. Iron ore from this pit and numerous others was taken to Center Furnace to be processed. Primary bedrock of Land Between the Lakes is limestone; and small outcroppings and quarries, rich in fossil imprints and replacements, occur throughout the area. The Geology Station is also a prime example of early strip mining. The abandoned pit is evidence of man's exploitation of his natural resources as well as an example of nature's reclamation process.

Forest and Wildlife Management--As 85 percent of Land Between the Lakes is wooded, forestry studies are where you find them. Outstanding sites have been selected for identified study areas. Turkey Ridge Trail, branching off the trail (Honker Trail) from the Youth Station to Center Station, is an example of this. Many phases of timber management may be studied along this trail. Long Creek Walk below Center Station is located in a rich bottomland situation which affords numerous species of trees and shrubs. Trail of These Hills provides a comprehensive look into the rationale and methodology of forestry and wildlife management. The area proximate to the Youth Station includes optimum sites for studies in succession and plant identification.

Plant Succession and Population Dynamics--Studies in plant succession and population dynamics are best carried out in fields that are left undisturbed and are allowed to revert naturally. Several such fields are located on the Youth Station peninsula, and many others are found throughout the Environmental Education Center. The techniques and necessary equipment for these studies will be furnished by the Environmental Education Center staff.

Camping Areas--With the increase of leisure time and improved transportational systems accessible to open land, an experience in using the land wisely and in harmony is an important element of a child's education. It is for this reason that overnight camping areas have been designated in the Environmental Education Center. The sites are within a 20-minute walk of the Youth Station. Schools wishing to include a camp-out in their schedule should provide their own sleeping and eating equipment.

Equipment

The following lists equipment and audiovisual aids available to resident groups at the Youth Station. Equipment is checked out to the group supervisor upon request.

EQUIPMENT LIST

Field and Laboratory:

- aquatic nets
- art supplies (Limited)
- axe
- Balscopes (Monocular)
- Biltmore sticks
- binoculars
- collecting jars
- compasses
- compass games
- drawing boards
- hand lenses
- increment borer
- microscope
- microscope slides
- plant presses
- pH test paper set
- rock chisels
- rock hammers and picks
- safety glasses
- saw
- shovel
- soil auger
- soil sieves
- soil tester kits
- soil thermometers
- tape measures
- traps
  - woodchuck-raccoon
  - rabbit-squirrel
  - mouse
  - minnow
  - insect
- tree caliper

Audiovisual:

- 16mm film projector
- slide projector
- films:
  - "Patterns of the Wild"
  - "Kentucky's Feathered Rainbow'
  - "A Nation of Spoilers"
  - "The Beaver"
  - "Discovery"
  - "Land Between the Lakes"
  - "So Little Time"
  - "Whitetail and His Friends"

Health and Safety

As no medical assistance is provided by TVA, it is recommended that a registered nurse be included as a staff member during the resident program. If a nurse is unavailable, at least one person well trained in first aid is required.

Medical and hospitalization services are available at Cadiz, Grand Rivers, and Murray, Kentucky, all approximately twenty-five miles distance. Physicians in all communities have been notified, and a listing of those available is provided at the Youth Station.

It is advisable that each student receive a medical examination and approval of an appropriate medical officer to participate in the resident program. The group supervisor should be informed of any health problems of students in order that proper precautions might be taken.

Accident and health insurance is required for all resident groups. School group or family plans usually provide adequate coverage. Also, short-term, group, or individual plans may be obtained at nominal cost.

Resident Rates

Cost

The cost for the use of the Youth Station is as follows:
Note: Minimal Fee--any person spending one overnight and eating at least one meal will be charged the daily rate.

Student Rate--A daily rate of $5 includes three meals and one night's lodging plus the use of all equipment and facilities. A four-day rate of $18.75 is set for groups wishing to schedule the Youth Station for one week. This rate includes thirteen meals and four nights lodging, beginning with lunch on Monday inclusive through lunch on Friday or a similar arrangement.

Student rates include two snacks a day. Snacks usually consist of fruit or cookies and beverage. The snack schedule is the decision of the group supervisor.

One set of linens is provided for each student. Each set includes two sheets and one pillowcase. Blankets are included with the housing. Towels and wash cloths are not available.

Student rates apply to educational groups through grade 12. Supervisors, teachers, and counselors of such groups are included in this rate.

Adult Rate--A daily rate of $7 is applicable to adult groups. This includes the same services as the student rate.

Adult rates apply to any group above the 12th grade.

Collection of Fees

Fees for use of the Youth Station are paid by the group rather than by the individual. Group charges are payable upon the departure of the group or determined by prior written arrangement. Checks and money orders should be made payable to the Tennessee Valley Authority.

Policies

TVA Staff Responsibilities

The staff of the Environmental Education Center has a varied role in its responsibilities to a class that plans a trip to the Youth Station. Following the initial contact of a teacher or administrator interested in conducting an environmental education program at the Youth Station, arrangements are made for a member of the staff to meet with the interested persons to discuss the type of program desired, resources available at Land Between the Lakes, capacity and operation of the Youth Station, cost and length of stay, and available dates for the resident program. A date is set for the teachers and counselors who will be conducting the program to visit the Youth Station and surrounding area. At this time, the Environmental Education Center staff is available to identify study areas that are best suited for the resident program.

The Environmental Education staff is available to conduct workshops for school personnel to acquaint them with procedures and methods of outdoor instruction. Meetings for planning of the program and schedule can be held at the Youth Station or at the school. It is a policy of the Environmental Education Center that a member of the TVA staff be involved in the initial program planning.

While a group is in residence, the Environmental Education Center staff does not participate in the program. They will accompany and sometimes lead a group, but this would be only as a guide or in a specialized area of study. Also, they will be available to provide assistance in the use of unfamiliar equipment and supplies.

Youth Station Regulations

Policies governing facility use are as follows:

Length of Stay--The Youth Station is designed to demonstrate to as many people as possible the value of an outdoor education experience. It is for this reason that 12 days is the maximum length of stay for any group.

Facility Use--All buildings within the Youth Station complex are open to the resident group 24 hours a day with the exception of the kitchen area in the dining hall. No one other than assigned persons are permitted in the kitchen at any time.

Care of Grounds and Buildings--A group in residence is expected to leave the grounds and buildings in the manner in which they were found upon their arrival. Prior to departure, facilities and grounds are to be inspected for order, cleanliness, and forgotten articles.

Destruction or Loss of Property--A group in residence is responsible for the destruction or loss of property which does not occur under normal conditions. No natural features or man-made effects are to be disfigured or removed. (See Collecting)

Phone Calls--A pay phone is provided for personal calls. No phone calls can be made on phones other than the pay phone except in an emergency. All long distance calls that are made on phones other than the pay phone will be billed to the resident group.

Collecting--All collectors should follow standard collecting procedures and exercise extreme care in order to prevent unnecessary damage to the resources. Students should be informed of the collecting policy prior to their arrival at the Youth Station. The following regulations are binding; exceptions made only by special permit.

Animals, with the exception of insects, mites, ticks, and spiders may not be removed from the area or destroyed unless by special permit. Students in residence at the Youth Station may capture animals for observation, but such animals must be released as quickly as possible in the area where they were captured as some species will not survive for prolonged periods of captivity.

Plants and non-living resources such as leaves, twigs, fruit, and bark collections are permitted. It is recommended that this type of collection be made on a group basis. Collections of wild flowers and other materials are prohibited. Non-living resources such as fossils may not be removed from their natural location. An exception is slag (a solidified waste product from iron smelting), one piece of which may be collected by each student.

Cultural resources including prehistoric and historic features may not be damaged or removed from the site.

APPENDIX A

SUGGESTED CLOTHING LIST

SUGGESTED CLOTHING LIST

Seasonal conditions determine type of clothing needed. Marking items with name tape or indelible ink will help prevent loss and confusion. As dormitory space is limited, please plan for only one suitcase.

Essential Items

Pajamas
Shirts
Jeans, cords or heavy trousers
(recommended for both boys and girls)
Sweater or Sweat shirt
Jacket or coat
Tennis shoes or moccasins
Strong shoes or boots
Socks
Underwear
Hat, cap, or scarf
Handkerchiefs
Toilet kit to include:
- Comb & brush
- Soap in box
- Towels
- Wash cloths
- Toothbrush & tooth paste

Raincoat, hat, & rainboots
Letter writing materials--
- Pencil
- Paper
- Stamps

Optional Items

Bathrobe
Bedroom slippers or shower shoes
Shower caps for girls
Chapstick
Camera & film
Flashlight
Insect repellent

ATTACH CHECKLIST INSIDE SUITCASE

CLOTHING CHECKLIST

Please Post in Child's Suitcase.

Item	Number Put In	Number Leaving Outdoor School
Pajamas		
Shoes		
Socks		
Shirts		
Jeans or trousers		
Sweater or sweat shirt		
Jacket or coat		
Underwear		
Handkerchiefs		
Rain gear		
Towels		
Wash cloth		
Toothbrush and paste		
Comb & brush		
Write in any other:		

APPENDIX B

SAMPLE DUTY CHART

SAMPLE DUTY CHART

Sleeping Area

Make beds.
Sweep floors.
Put away personal items in lockers.

Laboratory and Shower Area

Sweep and mop floor.
Clean sinks and toilets.
Remove all personal items - towels may be arranged neatly for drying.
All showers and faucets turned off - not left dripping.

Outside Area

Pick up all litter around buildings.
Close all building doors.
Sweep porches and steps.

Final Checkout

Sweep and clean all floors.
Fold linens (pillowcases, sheets, blankets).
Remove all personal items.
Check in all Youth Station equipment.

APPENDIX C

SAMPLE DAILY SCHEDULE

SAMPLE

RESIDENT SCHOOL PROGRAM

Daily Schedule

7:00 a.m.	Arise, shower, ready for breakfast. Counselors in charge.
7:30 a.m.	Flag Ceremony.
7:45 a.m.	Breakfast: music story. Counselors in charge.
8:30 a.m.	Make beds, clean quarters, ready for activity. Counselors in charge.
9:00-12:00	Morning activity period--study trips, etc. Evaluation of morning activity period. Teacher in charge.
12:00-12:15 p.m.	Wash for lunch--face, hands, and hair groomed. Dining hall responsibilities. Counselors in charge.
12:15-1:00 p.m.	Lunch: music, conversation. Dining hall responsibilities. Counselors in charge.
1:00-1:45 p.m.	Evaluation of morning activities. Teacher in charge. Rest, sleep, quiet recreation. Counselors in charge.
1:45-4:30 p.m.	Afternoon activity period--study trips, council, etc. Teacher in charge.
4:30-4:45 p.m.	Evaluation of afternoon activity. Teacher in charge.
4:45-5:15 p.m.	Leisure time activity--individual project, games, short hikes, reading, letter writing, newspaper, sketching, etc. Cabin counselors in charge.
5:15-5:30 p.m.	Grooming for dinner--wash hands, face, and comb hair. Counselors in charge.
5:30-6:30 p.m.	Dinner: music, conversation. Dining hall responsibilities. Counselors in charge.
6:30-7:00 p.m.	Leisure time--free time as student wishes. Cabin counselors in charge.

7:00-9:00 p.m.	Evening activity period. Creative expression, campfire, astronomy, night excursion. Snack. Teacher and/or counselors in charge.
9:00-9:30 p.m.	Preparation for bed. Cabin counselors in charge.
9:30 p.m.	Retire. Lights out. Cabin counselors in charge.

APPENDIX D

SAMPLE PROGRAMS

The following programs are provided only as examples of two approaches to scheduling and programing a resident experience. Numerous approaches exist, and each group should evaluate their needs and objectives carefully prior to planning.

PADUCAH CITY SCHOOL SYSTEM

ENVIRONMENTAL EDUCATION PROGRAM

Developed by

James M. Major

and

Charles A. Cissell

OUTDOOR EDUCATION FIELD TRIP

Schedule

TIME: Two days and one night

PERSONNEL: Director
Three Guides
Three other adults (Classroom teacher, principal or committee member)
Thirty Students

BREAKDOWN: Three Groups - Reds, Blues, Greens
Each Group: Guide, other adult, ten students working in pairs.

TIME SESSION BREAKDOWN:

Session I	10 a.m. to 12 a.m.
Session II	1:30 p.m. to 5:00 p.m.
Session III	7:00 p.m. to 8:30 p.m.
Session IV	6:00 a.m. to 7:00 a.m.
Session V	8:30 a.m. to 12:00 a.m.
Session VI	1:30 p.m. to 5:00 p.m.

AREAS OF STUDY:

A. Visitors Center - Preview of Trip
   1. Displays and Movie
   2. Center Furnace
      a. Furnace
      b. [illegible]ment
      c. Chinese Burial Ground
      d. Beaver Dam and Lodge
      e. Hematite Lake - Ducks and Geese (?)

B. Colby's Valley
   1. Objective - Land Forms - Based on Erosion by Water - The Life of a River and Its Activity
   2. Procedure:
      a. Rest stop at mouth of Crutchfield's Creek on Honker Lake - Story of River
      b. Follow creek from mouth to headwaters
         Activities: Observe floor of valley
         Watershed on both sides
         General course of creek
         Tributaries
      c. Return to Honker Lake following Martin's Creek
         Activities: Record at regular intervals
         (1) Width of creek
         (2) Depth of creek
         (3) Velocity of creek
         (4) Action of water in bend
         (5) Core samples of creek bed
         (6) Flood plains

(8) Islands
(9) Isthmus
(10) Changes of channel
(11) Changes of direction of stream flow
(12) Tributaries
(13) Erosion of adjacent watersheds (Locate all the above by relation to temporary markers placed in creek by guide on trip to the headwaters)

Measurements to be made by knotted string with weight attached to end. Data can be recorded on sheet showing general shape on valley.

OTHER NOTATIONS:

Evidence of animal life
Evidence of the effect of plant life on stream's activity

C. Cissell's Field and Aquatic Station
Objective: Plant and Animal Life (Ecology)
1. Note evidence of animal life along the trail
a. Tracks
b. Living animals
2. Aquatic Station
a. Animal tracks
(1) Kinds
(2) Location
b. Plants
(1) Kinds
(2) Location
3. Tree Area
a. Study of population of ten pace square
1. Measure height of plants
2. Determine types of plants
3. Locate types of plants in area
b. Study growth of twig
1. Terminal bud
2. Terminal bud rings
3. Leaf scars and lateral buds
4. Measure a year's growth
(Study should include at least two twigs)
4. Field Area
a. Study of population of one square yard of field
Select area at random (Throw some object; use spot it lands as one corner of plot to be studied)
1. Kinds of plants
2. Number of each
3. Location of each

D. Home Flock, Iron Hills, Major's Lodge
1. Objectives:
a. History
b. Observation
c. Natural conservation
d. Change in area - man-made
2. Procedure:
a. Cross dam
b. Visit Home Flock area
c. Follow trail over Iron Hills

d. Study natural conservation in old strip mines
e. Follow trail around slough where Home Flock is located
f. Proceed from trail up to Major's Lodge
g. Proceed all the way around point to pick up trail on far side

OUTLINE OF OPERATION FOR TWO DAYS AND ONE NIGHT

Session I

Entire group gather at Visitor Center
Instructions:
Red Group - Museum - Displays and movie. Then proceed over top of hill - Watson's Monument - Chinese Burial Ground - Hematite Lake - Follow stream back to furnace observing picnic ground, Beaver Lodge then back to Visitor Center.

Blue Group - Down road to furnace. Downstream past picnic grounds to Hematite up over hill, Chinese Burial Ground to Watson's Monument and back to Visitor Center for display and movie.

Green Group - Over top of hill - Watson's Monument - Chinese Burial Ground - Hematite Lake - Follow stream back to furnace observing picnic ground, beaver lodge, etc. Back to Visitor Center for movie, then look over display.

Load all groups on bus and proceed to Educational Center.

Session II

Red Group - Colby's Valley

Blue Group - Aquatic Station and Cissell's Field

Green Group - Home Flock, Iron Hills and Major's Lodge

Session III

Red Group - Compiles and organizes days data - records

Blue Group - Compiles and organizes days data - records

Green Group - Discusses observations, organizes, and records

Session IV

Red, Blue, and Green Groups up and out to observe sunrise along with the early bird movements. (Separation of groups to be worked out).

Session V

Red Group - Aquatic Station and Cissell's Field

Blue Group - Home Flock, Iron Hills and Major's Lodge

Green Group - Colby's Valley

Session VI

Red Group - Home Flock, Iron Hills and Major's Lodge

Blue Group - Colby's Valley

Green Group - Aquatic Station and Cissell's Field

Session VII

Everyone boards bus and heads back to Paducah.

ENVIRONMENTAL EDUCATION PROGRAM

General Purpose

The environmental education program addresses itself to the need for a general educational effort to produce in future generations interpretations of the profound relationships between resources and ecological balances, regional development, public policy, economics, and human welfare.

The purpose of environmental education is to sensitize people to environment and make them increasingly aware of the ways in which the environment shapes man and the ways in which man shapes the environment both to his advantage and disadvantage.

Outdoor activities are designed to encourage the development of the concept that all living creatures are products of their total environment and that the environment can be modified by man in order to secure a safe, healthful, and peaceful future for himself and his heirs.

The draft of the outdoor activities involves educational procedures which are planned to stimulate learning by firsthand experience and to provide the incentive to make objective resource decisions.

General Objectives

I. Self-Realization

1. Perceiving man's role in conservation methods relative to plant and animal life.

2. Exploring new avenues of individual creativity that are stimulated by beauty and the setting of the outdoor environment.

3. Acquiring skills in outdoor and environmental living in connection with satisfying experiences.

4. Using life situations in the outdoors for application of school subject matter material.

5. Providing for status needs and feeling of self-dependence.

6. Sensing spiritual thoughts and feelings through contact with nature.

II. Human Relationships

1. A variety of social settings are provided where students can be themselves and where the group relationships and individual feelings are in proper balance.

2. The outdoor living quarters is considered to be a miniature community where many community problems have their comparable aspects.

3. Many outdoor activities are possible only through teamwork and group action.

4. Outdoor experiences offer opportunities to develop new friendships.

5. There is little dependence on social and economic status and other barriers to real understanding due to the simple and informal manner of living and working in the outdoors.

6. In the outdoor school activities the teacher is in a better position to establish genuine rapport with participating students.

III. Economic Efficiency

1. Outdoor experiences offer opportunities for planning and executing purposeful work which will be valuable in earning a living in adult life.

2. Students witness job opportunities available in vocational and professional areas in wildlife conservation and management, agriculture, forestry, and park management.

IV. Civic Responsibility

1. Outdoor activities are conducive to a maximum amount of community and group interaction.

2. Assuming a position of leadership in cooperative work activities is encouraged and is available in the structured outdoor program.

School Objectives

1. To develop a sense of responsibility for the preservation and conservation of our natural resources.

2. To acquire the use of the power of observation and curiosity about natural phenomena as an avenue of learning.

3. To promote a desire and a will to protect living and non-living resources important to man and to use them wisely.

4. To realize that interrelationships exist between living organisms and their physical environment.

5. To identify the natural changes in the environment and develop a sober and salutary attitude toward the changes.

6. To strengthen the senses through close and accurate observation.

7. To promote the growth of a spirit of inquiry and the broadening of interests.

8. To manifest the cognitive processes of comprehension, analysis, and synthesis through stimulating and creative learning experiences.

9. To visualize the foundation and relationship of man's artistic and scientific achievement to the natural world.

10. To move the learning experience from an entirely artificial setting in the classroom to the real life environment.

11. To provide learning activities that cannot be structured in the classroom.

12. To provide activities which associate and connect learning and living and to enable students to achieve better academic success.

ENVIRONMENTAL EDUCATION PROGRAM

Process: The procedure used by the environmental education staff to effect the educational activities of the program for a particular referent group.

The Instructional Approach

Land Between the Lakes affords many teaching opportunities for the instructional staff.

All of the experiences during the resident stay at Land Between the Lakes are to be considered instructional in nature. However, the educational program refers to those activities which have been planned by the environmental education committee. All areas of operation for a particular referent group are to come under the supervision of the project leader.

Within the broad scope of the environmental education program, many possible patterns of instruction are to be considered by the project leader and the field staff for a particular referent group prior to the scheduled trip to Land Between the Lakes.

Each member of the instructional team will answer the following questions:

How will you organize your teaching?
Theme, problem, unit, skill development. . .

How will you plan your teaching?
Planned day by day at Land Between the Lakes, Teacher directed, pupil directed, teacher-pupil directed . . .

How will you teach?
Guided tour, self-directed, problem-solving and discovery approach, lecture, demonstration . . .

What will you teach?
Material related to on-going classroom program, specialty or personal desire of individual, season of the year, present climatic condition . . .

After considering the answers to these questions, the project leader will want to determine who will be responsible for particular educational activities.

Outdoor Education

I. Planned Activities

A. History of the Center Furnace and surrounding area.

B. Plant and animal ecology.

C. Map and compass skills.

D. Geology

E. Land forms and streams study.

F. Art.

G. Math.

II. Outdoor Education Objectives

A. To appreciate nature.

B. To develop skill in making accurate and thorough observations.

C. To become competent in map and compass skills.

D. To see the relationship between plants and animals.

E. To understand plant succession.

F. To develop an understanding of how the landscape is related to the history of the area.

G. To recognize mineral differences as to shape, color, composition, weight, and texture.

H. To develop some math concepts in counting, estimating, and measuring.

I. To develop creativity from found objects in nature.

Dear Parents:

On _____ we will have an orientation meeting in the auditorium for parents of children participating in the Land Between the Lakes area _____, _____ _____, and _____.

We are happy to tell you that there will be no charge for the trip itself. However, if your child is not currently covered by school insurance or some kind of Home Owners policy, we ask that you take out some insurance at this time. School insurance may be obtained for $3.

We hope that you will be able to come over on _____ so that we will be able to answer any questions that you may have.

Sincerely,

Principal

Dear Parent:

The Paducah School System is constantly striving to provide better learning experiences for your child. Many of the programs taught at the present time were at the experimental stage only a few years ago. We hope that you feel as we do that the search for different and better ways for children to learn has been rewarding.

In keeping with this program of improvement, the Paducah School System is sponsoring an outdoor education field trip for classes from our school system. All fifth grade and selected secondary students will participate in this program this year.

The purpose of this field trip will be to provide learning experiences in the outdoors in the following areas:

1. Plant ecology
2. Animal ecology
3. Local and regional history
4. Geology and topography
5. Conservation and nature appreciation

The field trip will last for two and one-half days and two nights at the fifth grade level and two days and one night at the junior high level. Your child's class will participate in the outdoor education project on _____ and _____. His class will leave approximately at _____ on the first day, and will return at approximately _____ on their last day.

This program in outdoor education will be conducted at the Conservation Education Center in Land Between the Lakes. Meals and lodging will be provided in the Youth Station.

"The Youth Station is located in the Conservation Education Center, a 5,000-acre area within the boundaries of the Land Between the Lakes National Outdoor Recreation Area. Situated on a small point jutting out into Lake Barkley, it has been developed by the Tennessee Valley Authority for use by school systems throughout the southern, central, and eastern United States.

The Youth Station is designed to accommodate two classes, 60 students with their teachers and counselors. Although the living accommodations were developed specifically for fourth-ninth graders, they may be used by groups who do not fall within this category. Individual school groups are welcome to use the outdoor campus for periods ranging from two days to two weeks. Some schools in the region immediately surrounding Land Between the Lakes have used the area for a series of one-day field trips. A resident program, however, can offer a more complete, well-rounded experience with the added advantage of having students living and working together.

Tennessee Valley Authority personnel handle the food service at the Youth Station giving students and teachers an opportunity to devote full time to recreational activities. Food is prepared and served from a modern kitchen using prepackaged meals.

While visiting the Youth Station, students and teachers will live in six dormitories, each designed to sleep ten youths and two adults. Sheets and pillows are provided, but each person will generally be required to bring his own linens."

All cost for the program will be paid by the school system. A list of clothing your child will need is provided on a following page. Transportation will be provided by regular school buses owned and operated by the Paducah Public Schools.

Before your child can participate in this educational program it will be necessary for you to give your permission for him to participate at the Conservation Education Center in land between the lakes. Please sign and return this form to your child's teacher.

- -

We, the parents of _____ grant permission for our child to participate in the school sponsored field trip.

_____
Parent's Signature

- -

In order for your child to participate in this field trip, it will be required of him to have ____ accident insurance coverage and permission from his parents.

The Wabash Insurance Company's student school insurance ($3 or $10 premium) that you have on your child this current school year is sufficient. If, however, your child is not covered by the Wabash Insurance Company student insurance, your Family Accident Insurance policy will be acceptable.

Please indicate on the line below the name of the accident insurance company with which you have coverage.

_____
Name of Company

If for any reason you do not have the Student Accident Insurance or Family Accident Insurance, you may purchase the Student Accident Insurance from your child's school for $3.

We are looking forward to working with your child in this educational endeavor.

Sincerely,

Checklist for Students

I. Clothing

1. Comfortable walking shoes (tennis shoes are not acceptable) - two pair
2. Socks - four pair
3. Light jacket (waterproof is preferable) and raincoat
4. Sweater or sweat shirt
5. Ankle-length slacks (no shorts or skirts) - two or three pair
6. Pajamas
7. Underclothes for three days

II. Linens

1. One towel
2. One washcloth
3. Toothbrush, toothpaste, etc.

III. Equipment - All of these items are optional.

1. Compass
2. Binoculars
3. Camera
4. Notepad (pocket size) and pencil
5. Canteen
6. Overnight bag for clothing

IV. Items NOT to bring.

1. Knives
2. Food and chewing gum
3. Radio
4. Bulky suitcases
5. Fireworks

Checklist for Teachers

I. Suggested clothing - same as children

II. Equipment

1. Flashlight
2. Baggies (one for each of your students)
3. Kleenex supply
4. List of student names, phone numbers, and addresses
5. Outline map for each student

III. Preparation

1. Permission slips collected
2. Organization of student groups by sex

NOTE: On permission slips ask parents if child has any health problems. We should be aware of before taking him or her on a two-day trip.

NASHVILLE METROPOLITAN SCHOOLS

TITLE I ESEA

Developed by

Elizabeth Roller
Coordinator of Outdoor Education

Under Title I, Elementary Secondary Education Act, (ESEA), Project 9, two classes of sixth grade children will be going to the Conservation Education Center at Land Between the Lakes for a week of extended school. They will go on Monday and return Friday. All expenses will be paid under the project.

Plan of Program

The two classes, one at Buena Vista and one at Carter Lawrence, will work in the school room before going on many of the plannings and activities they will experience at the extended school. They will follow closely the regular curriculum with the addition of activities that are only available at the outdoor school site.

Careful planning will be done by the teachers, consultants and the children in order that they receive the maximum benefit from the week. The children will fill out a questionnaire about interest areas. It is hoped that the integration of subjects such as science and math or history and language arts, will develop deeper understandings than those which could be developed in a classroom. Through outdoor education, a class of children has an apportunity to develop a comradeship with their teachers which is not easily accomplished in a traditional school setting. In addition, they may experience an appreciation of our natural environment that is so important in our need for conservation teachings today.

Most of the curriculum areas will be covered at the outdoor school. The daily schedule will be as follows:

7:00 Rise
7:25 Flag raising
7:30 Breakfast
8:15 Kapers - Kaper Chart in each shelter - Community Kaper Chart in dining room
9:00 First session - 7 groups
11:45 Cleanup
12:00 Lunch
12:45 Rest (read, write letters, work on scrapbook in shelter) NO TALKING
1:30 Second session - 7 groups
3:45 Recreational time - 3 groups each day assigned to arts and crafts Others may choose--fishing, Indian games, nature games, campcraft skills (axemanship, knot tieing, fire building), sketching, working on scrapbook, reading.
5:00 Cleanup
5:30 Supper
6:30 Evening activities:
Monday - campfire
Tuesday - Folk and square dancing
Wednesday - dramatic games
Thursday - campfire

Each evening some part of the group will leave the scheduled activities to go to astronomy or to see the animals at night.

Each child will have two sessions in astronomy and one trip to see the animals. This has to be after dark so they will start with the regular activities and then leave.

8:30 Back to quarters
9:00 Taps

Group Activities at Outdoor School

The following list is merely some suggested activities under each main topic to be taught at the outdoor school. Many activities will come up as the children explore. Each group of children will have about 2-1/2 hours in each activity.

Conservation and Ecology - Leader, Head of Education Division, Tennessee Conservation Department

Study of ecology and related fields.
Seeing how erosion has affected this area.
Understanding how man must conserve the natural resources. (This area covers a large range of activities

Map and Compass - Math - Leader - Teacher

Use of topo map and compass
Using compass course - Mapping the outdoor school area
Measuring - a board foot - age of tree
Surface area for mapping and scale drawings
Percent of slopes
Shadow ratio - making a sun dial
Pacing distance in hiking
Estimating and checking - height of trees, time of day, distance away of lightning, width of lake
Averaging - temperature readings, barometric readings

Language Arts (Creative teaching) - Leader, Consultant in Outdoor Education

Verbal discussion
Games using the senses - discovery games
Creative writing (Haikiu) stories
Writing up discoveries
(Many language arts activities will be covered in other areas--letter writing, keeping field notes, labeling specimens, working in the scrapbook)

Exploring (Social Studies) - Leader, Student teacher

This group will hike along trail that leads past a deserted farm area, a new "small" dam site, the Beaver Dam, and the old Iron Foundry. Using material supplied by the Land Between the Lakes personnel on the people of the area, discussion will be on the type of people who lived there, Indians of the area, and why the Iron Foundry ceased operation. The group will also visit Center Station.

Trees and Plants - Leader - Teacher

Using Biltmore stick to find number of board feet in tree
Study and identification of trees and plants
Making leaf prints for flash cards and scrapbook
Study of plant growth - use hand lens and microscope
Study of plants in stream and lake
Making a Terriumn

Animals, Birds, and Insects - Leader - Teacher

Identification of birds, animals, insects
Collection of insects - Embed in plastic
Finding bird and animal homes
Making casts of animal tracks
Making a fresh water aquarium
Making field notes of birds and animals observed

Rocks, Mineral, and Soil - Leader - Master Teacher

Collection of fossils, rocks
Study of a slope at different elevations
Study of history of earth through rock formations
Soil testing of different areas
Temperature of soil in different areas

Each group will make weather forecasts during the week and put up the weather flag.

Arts and Crafts - In Charge (with help), Student Teacher

Use of Native Crafts -

Wood carving, weaving grasses, nuts and roots, fungus use in carving and jewelry
All types of prints
Use of liquid plastic
Sketching, drawing, painting
Simple game equipment
Making things from stones and fossils
Pictures from natural materials
"Crazy" animals from wood and stones
Driftwood candle holders

Much of this material will be gathered as children are in other groups. Each child will have a "tote" bag to carry and collect.

Follow-up Back in the Classroom

Some follow-up activities in addition to those which would naturally come in the course of the classroom learning might be:

Continue research on questions from field study (i.e. comparison study of school site and outdoor site in regard to soil, rocks, weather, etc.)

Letters to people involved thanking them for their help

Report, in drawings, of what was done

Talks to other sixth grade classes telling about experience

Present program to PTA

Creative writing--reports on what was found out, stories, etc.

Scrapbook from items made at outdoor school

Evaluation

Several tests made up by consultants and teachers will be given pre and post to both the two classes going and to a control class in the school. These tests will be both factual and social. Most questions will cover curriculum facts that could be learned by both the children in school and those in the outdoor school. They will cover all main curriculum areas. Evaluation sheets will also be given to the teachers, children, and parents in order to check on all gains made by the outdoor school teaching.

The children will be put into small groups--8 to 10. They will work with a consultant in a 2-1/2 hour period both morning and afternoon. General areas, map and compass, math, ecology, and conservation, exploring, creative work, social studies, rocks and minerals, will be used with a leader in each. All of the children will have a chance to work in all of these areas during the week. There will be time provided for quiet, individual work--sketching, reading, finishing up a project. Physical activities will be scheduled each day for the children. The periods at night will include crafts, folk and square dancing, campfires, drama, singing and astronomy. Time will be given the children for household duties including care of the cabin, picking up in the area, sweeping, making beds, etc.

Each teacher, consultant, and student teacher will select an area to work with [illegible] their plan of study. These plans will include carry-over material for the classroom.

Some of the special materials that will be provided to the classes for use before and after the experience will include Audubon Junior Programs, books, films, and pictures. The Mobile Outdoor Education Unit will be at the site so that its equipment and materials can be used in the program.

Some special equipment will be used at the outdoor site--craft supplies, field bags for collections, special maps of the area and other needed items. Much of the equipment needed will be determined by the planning of the teachers and children in regard to exactly what areas will be stressed.

Parents of both classes have already been contacted and all have agreed to allow their children to go on the week's extended school. In case there is a student not able to go or sick part of the week, he will be absorbed into another sixth grade class at his school. Transportation will be made by public bus. The bus will remain the first day so as to transport the students to see the Kentucky Dam in operation, as this is too long a trip by foot.

A meeting with the parents will be held to show the TVA film "Discovery" and to answer any questions.

The following is the letter of information to the parents in regard to questions that might be asked.

Dear Parent:

Your child's class has been selected to go on a week's extended school to the Conservation Education Center at Land Between the Lakes. This will be a five-day period. They will go by bus from their school at 7:30 on Monday morning and will return Friday afternoon to their school at 5:00 p.m.

This is a pilot project under Title I of ESEA so that all costs will be paid for by the project. Your child will not need any money while at the outdoor school.

While most of the subjects taught at the outdoor school can be taught in the classroom, it is felt that the children can learn better firsthand experiences. Using the natural setting they can develop appreciation of what is around them. They discover that learning can take place in a relaxed atmosphere outside the school building and that learning in all subjects is related to a total situation. They can begin to see their relationship to other people in a living situation and thereby mature socially and emotionally as well as intellectually.

This week will be an enrichment of the school curriculum with such activities as conservation; nature study; social study; math skills; and skills in writing, discovery, and creative areas.

The children will be housed in new cabins built by TVA in a 5,000-acre area set aside for conservation education. There will be 10 children in each cabin with an adult. All linens will be furnished by the outdoor school. There are rest rooms and showers in each cabin. The large dining room, used for both meals and recreation, overlooks the lake. Meals are a special type and are designed for the health of the child. There will be snacks of juice, milk, or fruit during the day. The bunks have foam rubber mattresses on the beds and are separated from each other by a partition. Fully electric, comfortable, easily-cleaned buildings all help to make the children's stay at the center an enjoyable experience.

Each classroom will be accompanied to the outdoor school by its teacher and a student teacher assigned to the class. In addition, there will be a director and four resource people from the school system. There are also resource people at Land Between the Lakes. The children will work in groups of about 10 with a resource leader. No activity will be unsupervised.

There is a first aid instructor accompanying the group and a doctor on call at a nearby town.

A clothing list will be provided so that you will know what the child should take, but NO NEW CLOTHES will be needed. A suggested clothing list is attached. Please be sure your child has proper rain gear as our activities will go on rain or shine. It would help your child to have a checklist of clothing posted inside his suitcase.

General Instructions to Staff for Outdoor School

1. Be sure children are dressed correctly for the weather and activity--their best shoes when they are hiking, sweater at night. Make sure child has the checklist of clothing inside his suitcase. This MUST be checked when he packs to leave. See if the child has proper rain gear; and if not, report it to the Director so he can get a poncho to use at the outdoor school.

2. Keep an eye on the children at all times. Check your list to be sure you know who is supposed to be with you in your group. Don't let the children wander off at recreational time. Try to interest them in something. Watch for any signs of illness. There will be a first aid kit in each shelter and a large kit in the dining room. DO NOT LET the children doctor themselves. Report any signs of illness to the Director.

3. Try to get the children to wash and brush their teeth. Some may come without a toothbrush. Get them to wash before meals and try to get them to take a shower every day.

4. There is to be NO horseplay or fighting (this includes pillow fights) in the shelter or on the grounds. If the children are busy or if there are interesting things going on, this should not happen. Start a song or game if there seems to be extra time (before meals).

5. Be sure the areas are clean both inside and outside the shelters. If you pick up as you go, the children will do the same. HELP the children at Kaper time--Do not tell them what to do and watch them do it. Where there are two people in a shelter you can send one with a small group to do the Community Kapers. Where there is only one, plan to do the Community Kapers at some free time, (before or right after meals). There must be someone in the shelter at rest time and at night. Bring your writing materials, books to read, or other things for your free time there. Use those "teachable moments" at Kaper time, walking to meals or any time to help certain children with problems or to suggest ideas.

6. Don't be afraid to admit you don't know something--find out the answers with the children. Encourage them to use the library to look up answers. Carry your tote bag with you at all times. Keep guidebooks and paper in it. Encourage the children to do this also so they can gather things and be ready to look up things when an experience arises.

7. Get the children to write home. A card (this will be provided) will be required as a "ticket" to Tuesday's lunch. Encourage them to write down things they find out in their scrapbook. This can also be words to songs, funny things that happen, etc.--a type of "log."

8. Get to know the children. Remember you are responsible for them 24 hours a day. You will find out many things about the children that you would never find out in the classroom, and that will help you to understand them.

9. Change around at meals--talk to the children about what they have been doing--listen to their comments. Help them with their manners.

10. The most important thing in your group is to let the children find out for themselves. Don't TELL them--let them find out. LEAD them to the right answer. Get them involved in the actual discovery of each thing you do. Learn WITH them, and above all, help them appreciate the natural surroundings. Stress conservation in everything. Help them to understand that man needs nature more than nature needs man.

APPENDIX E

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PUBLISHED SCHOOL PROGRAMS AVAILABLE

Environmental Education - Objectives and Field Activities. Paducah Public Schools, Tenth and Clark Streets. Paducah, Kentucky 42001. (Price $2.50)

Teachers Handbook - Using the School and Community. Nashville Metro Schools, Environmental Education Department, Nashville, Tennessee.

Outdoor Education Manual for the Nature-Resource Center. Metropolitan Nashville-Davidson County Schools, Nashville, Tennessee.

Environmental Education Guide. Bear Creek Watershed Environmental Education Project, P. O. Box 880, Russellville, Alabama 35653.

APPENDIX F

(Under Separate Cover)

BROCHURES, MAPS, AND FIELD GUIDES

Field Guide to Wading and Upland-Game Birds of Land Between the Lakes

Field Guide to Mammals of Land Between the Lakes

A Checklist of Birds of Land Between the Lakes

The Iron Industry in Land Between the Lakes

Bald Eagles in Land Between the Lakes

Environmental Education Center Map

Maps are for Fun! Knowledge!

Land Between the Lakes Map (Small strip map)

Environmental Education Center

Also available from Land Between the Lakes' Information Office:

Spring Wildflowers of Land Between the Lakes	$1.25
Amphibians and Reptiles of Land Between the Lakes	1.50